IMMUNOLOGY

CONTENTS

Vol 82, No 1, May 1994

1 **E. J. Glass & P. Millar:** Induction of effective cross-reactive immunity by FMDV peptides is critically dependent upon specific MHC–peptide–T cell interactions

9 **J. M. Pollock, A. J. Douglas, D. P. Mackie & S. D. Neill:** Identification of bovine T-cell epitopes for three *Mycobacterium bovis* antigens: MPB70, 19,000 MW and MPB57

16 **O. E. Obeid & M. W. Steward:** The potential of immunization with synthetic peptides to overcome the immunosuppressive effect of maternal anti-measles virus antibodies in young mice

22 **P. I. Karachunski, N. Ostlie, B. M. Conti-Tronconi & M. Bellone:** Residues with the α subunit sequence 304–322 of muscle acetylcholine receptor forming autoimmune $CD4^+$ epitopes in BALB/c mice

28 **A. Väkevä, M. Jauhiainen, C. Ehnholm, T. Lehto & S. Meri:** High-density lipoproteins can act as carriers of glycophosphoinositol lipid-anchored CD59 in human plasma

34 **Y. Sugita, K. Ito, K. Shiozuka, H. Suzuki, H. Gushima, M. Tomita & Y. Masuho:** Recombinant soluble CD59 inhibits reactive haemolysis with complement

42 **S. Formica, T. I. A. Roach & J. M. Blackwell:** Interaction with extracellular matrix proteins influences *Lsh/Ity/Bcg* (candidate *Nramp*) gene regulation of macrophage priming/activation for tumour necrosis factor-α and nitrite release

51 **A. G. Stewart, T. Cotterill & T. Harris:** Granulocyte and granulocyte–macrophage colony-stimulating factors exert differential effects on neutrophil platelet-activating factor generation and release

57 **E. V. Davies, A. K. Campbell & M. B. Hallett:** Ca^{2+} oscillations in neutrophils triggered by immune complexes result from Ca^{2+} influx

63 **M. C. Serra, F. Calzetti, M. Ceska & M. A. Cassatella:** Effect of substance P on superoxide anion and IL-8 production by human PMNL

70 **M. R. Holliday, E. M. S. Banks, R. J. Dearman, I. Kimber & J. W. Coleman:** Interactions of IFN-γ with IL-3 and IL-4 in the regulation of serotonin and arachidonate release from mouse peritoneal mast cells

75 **A. Vicente, A. Varas, L. Alonso, M. Gómez de Moral & A. G. Zapata:** Ontogeny of rat thymic dendritic cells

82 **D. I. Gabrilovich, G. M. Woods, S. Patterson, J. J. Harvey & S. C. Knight:** Retrovirus-induced immunosuppression via blocking of dendritic cell migration and down-regulation of adhesion molecules

88 **A. T. Linke & D. K. Male:** Strain-specific variation in constitutive and inducible expression of MHC class II, class I and ICAM-1 on rat cerebral endothelium

95 **M. Garcia-Barcina, M. Winnock, I. Bidaurrazaga, S. Huet, P. Bioulac-Sage & C. Balabaud:** Detection of cell-adhesion molecules on human liver-associated lymphocytes

99 **F. Dieli, G. L. Asherson, G. Sireci, G. Tantillo, C. del Carpio & A. Salerno:** Dominant Vβ8 gene usage in response to TNP: failure to use other Vβ chains following removal of $V\beta8^+$ T cells by monoclonal antibody *in vivo*

106 **H. Takada, G. Matsuzaki, K. Hiromatsu & K. Nomoto:** Analysis of the role of natural killer cells in *Listeria monocytogenes* infection: relation between natural killer cells and T-cell receptor γδ T cells in the host defence mechanism at the early stage of infection

113 **M. Kubeš, N. Fuchsberger, M. Labuda, E. Žuffová & P. A. Nuttall:** Salivary gland extracts of partially fed *Dermacentor reticulatus* ticks decrease natural killer cell activity *in vitro*

117 **A. Sundstedt, M. Dohlsten, G. Hedlund, I. Höldén, M. Björklund & T. Kalland:** Superantigens anergize cytokine production but not cytotoxicity *in vivo*

126 **R. Arnold, B. Humbert, H. Werchau, H. Gallati & W. König:** Interleukin-8, interleukin-6, and soluble tumour necrosis factor receptor type I release from a human pulmonary epithelial cell line (A549) exposed to respiratory syncytial virus

134 **P. C. Wilkinson & I. Newman:** Chemoattractant activity of IL-2 for human lymphocytes: a requirement for the IL-2 receptor β-chain

140 **T. Shimizu & J. W. Streilein:** Evidence that ultraviolet B radiation induces tolerance and impairs induction of contact hypersensitivity by different mechanisms

149 **J. F. Carlquist, J. Shelby, E. H. Hammond, J. H. Greenwood & J. L. Anderson:** Histoincompatibility-associated differences in the phenotypes of murine cardiac allograft infiltrating T cells

154 **K. Pulford, K. J. Micklem, M. Jones, F. Pezzella, K. M. Mayne, H. Morrison, J. Thomas, B. Falini, A. Norton & D. Y. Mason:** A novel internal antigen which distinguishes germinal centre cells from other B-cell types

164 **L. Rénia, M. M. Rodrigues & V. Nussenzweig:** Intrasplenic immunization with infected hepatocytes: a mouse model for studying protective immunity against malaria preerythrocytic stage

169 Book reviews

Vol 82, No 2, June 1994

171 **K. Hamprecht & M. Steinmassl:** Low-dose human cytomegalovirus infection of human fibroblast cultures induces lymphokine-activated killer cell resistance: interferon-β-mediated target cell protection does not correlate with up-regulation of HLA class I surface molecules

178 **N. Rubio:** Demonstration of the presence of an interleukin-1 receptor on the surface of murine astrocytes and its regulation by cytokines and Theiler's virus

184 **R. Arnold, F. Werner, B. Humbert, H. Werchau & W. König:** Effect of respiratory syncytial virus–antibody complexes on cytokine (IL-8, IL-6, TNF-α) release and respiratory burst in human granulocytes

192 **K. Masuyama, M. R. Jacobson, S. Rak, Q. Meng, R. M. Sudderick, A. B. Kay, O. Lowhagen, Q. Hamid & S. R. Durham:** Topical glucocorticosteroid (fluticasone propionate) inhibits cells expressing cytokine mRNA for interleukin-4 in the nasal mucosa in allergen-induced rhinitis

200 **S. Ying, S. R. Durham, M. R. Jacobson, S. Rak, K. Masuyama, O. Lowhagen, A. B. Kay & Q. A. Hamid:** T lymphocytes and mast cells express messenger RNA for interleukin-4 in the nasal mucosa in allergen-induced rhinitis

207 **M. Mengozzi, G. Fantuzzi, R. Faggioni, A. Marchant, M. Goldman, S. Orencole, B. D. Clark, M. Sironi, F. Benigni & P. Ghezzi:** Chlorpromazine specifically inhibits peripheral and brain TNF production, and up-regulates IL-10 production, in mice

211 **P. Garside, S. Reid, M. Steel & A. McI. Mowat:** Differential cytokine production associated with distinct phases of murine graft-versus-host reaction

215 **M. Paroli, G. Carloni, A. Franco, G. de Petrillo, E. Alfani, A. Perrone & V. Barnaba:** Human hepatoma cells expressing MHC antigens display accessory cell function: dependence on LFA-1/ICAM-1 interaction

222 **A. R. E. Anwar, G. M. Walsh, O. Cromwell, A. B. Kay & A. J. Wardlaw:** Adhesion to fibronectin primes eosinophils via $\alpha_4\beta_1$ (VLA-4)

229 **C. W. Evans, B. T. Lund, I. McConnell & R. Bujdoso:** Antigen recognition and activation of ovine $\gamma\delta$ T cells

238 **D. A. Kirschmann, X. He & D. M. Murasko:** Inhibition of macrophage-induced, antigen-specific T-cell proliferation by poly I : C role of suppressor macrophages

244 **C. L. Silva & D. B. Lowrie:** A single mycobacterial protein (hsp 65) expressed by a transgenic antigen-presenting cell vaccinates mice against tuberculosis

249 **A. L. Rakhmilevich:** Evidence for a significant role of $CD4^+$ T cells in adoptive immunity to *Listeria monocytogenes* in the liver

255 **S. Frischholz, M. Röllinghoff & H. Moll:** Cutaneous leishmaniasis: co-ordinate expression of granzyme A and lymphokines by $CD4^+$ T cells from susceptible mice

261 **K. Robinson, T. Bellaby & D. Wakelin:** Vaccination against the nematode *Trichinella spiralis* in high- and low-responder mice. Effects of different adjuvants upon protective immunity and immune responsiveness

268 **A. H. M. Boots, A. J. M. M. Wimmers-Bertens & A. W. M. Rijnders:** Antigen-presenting capacity of rheumatoid synovial fibroblasts

275 **L. A. O'Reilly, D. Healey, E. Simpson, P. Chandler, T. Lund, M. A. Ritter & A. Cooke:** Studies on the thymus of non-obese diabetic (NOD) mice: effect of transgene expression

287 **A. Ramos, R. Merino & J. Merino:** Differences in non-MHC alloantigens promote tissue rejection but fail to mediate allogeneic co-operation and autoimmunity in mice neonatally injected with semi-allogeneic F_1 B cells

294 **M. J. M. Jacobs, A. E. M. van den Hoek, L. B. A. van de Putte & W. B. van den Berg:** Anergy of antigen-specific T lymphocytes is a potent mechanism of intravenously induced tolerance

301 **J. Quddus, A. Kaplan & B. C. Richardson:** Anti-CD11a prevents deletion of self-reactive T cells in neonatal C57BR mice

306 **M. Haak-Frendscho, K. Robbins, R. Lyon, R. Shields, J. Hooley, M. Schoenhoff & P. Jardieu:** Administration of an anti-IgE antibody inhibits CD23 expression and IgE production *in vivo*

314 **R. C. Strunk, J. A. Fleischer, Y. Katz & F. S. Cole:** Developmentally regulated effects of lipopolysaccharide on biosynthesis of the third component of complement and factor B in human fibroblasts and monocytes

321 **E. B. Nikolova, M. Tomana & M. W. Russell:** The role of the carbohydrate chains in complement (C3) fixation by solid-phase-bound human IgA

328 **L. E. French, A.-P. Sappino, J. Tschopp & J. A. Schifferli:** Clusterin gene expression in the rat thymus is not modulated by dexamethasone treatment

Rapid communication

332 **A. Ueki, M. Yamaguchi, H. Ueki, Y. Watanabe, G. Ohsawa, K. Kinugawa, Y. Kawakami & F. Hyodoh:** Polyclonal human T-cell activation by silicate *in vitro*

Vol 82, No 3, July 1994

337 **K. Falk, O. Rötzschke, S. Stevanović, V. Gnau, K. Sparbier, G. Jung, H.-G. Rammensee & P. Walden:** Analysis of a naturally occurring HLA class I-restricted viral epitope

343 **C. A. Smith, C. M. Graham & D. B. Thomas:** Immunodominance correlates with T-cell receptor ($\alpha\beta$) gene usage in the class II-restricted response to influenza haemagglutinin

351 **R. J. J. van Neerven, M. M. van de Pol, E. A. Wierenga, R. C. Aalberse, H. M. Jansen & M. L. Kapsenberg:** Peptide specificity and HLA restriction do not dictate lymphokine production by allergen-specific T-lymphocyte clones

357 **D. H. Crawford, S. Chen & C. A. R. Boyd:** Cationic amino acid transport in human T lymphocytes is markedly increased in the CD45RA, $CD8^+$ population after activation

361 **R. Appelberg, A. G. Castro, J. Pedrosa & P. Minóprio:** Role of interleukin-6 in the induction of protective T cells during mycobacterial infections in mice

365 **O. Taguchi, K. Kontani, H. Ikeda, T. Kezuka, M. Takeuchi, T. Takahashi & T. Takahashi:** Tissue-specific suppressor T cells involved in self-tolerance are activated extrathymically by self-antigens

370 **A. Ianaro, C. A. O'Donnell, M. di Rosa & F. Y. Liew:** A nitric oxide synthase inhibitor reduces inflammation, down-regulates inflammatory cytokines and enhances interleukin-10 production in carrageenin-induced oedema in mice

376 **B. Clinchy, P. Björck, S. Paulie & G. Möller:** Interleukin-10 inhibits motility in murine and human B lymphocytes

383 **K. M. C. Lam, H. Whittle, M. Grzywacz & D. H. Crawford:** Epstein–Barr virus-carrying B cells are large, surface IgM, IgD-bearing cells in normal individuals and acute malaria patients

389 **N. Honarvar, U. E. Schaible, C. Galanos, R. Wallich & M. M. Simon:** A 14,000 MW lipoprotein and a glycolipid-like structure of *Borrelia burgdorferi* induce proliferation and immunoglobulin production in mouse B cells at high frequencies

397 **J. Taverne, N. Sheikh, J. B. de Souza, J. H. L. Playfair, L. Probert & G. Kollias:** Anaemia and resistance to malaria in transgenic mice expressing human tumour necrosis factor

404 **V. Wicher, R. E. Baughn & K. Wicher:** Congenital and neonatal syphilis in guinea-pigs show a different pattern of immune response

410 **A. E. Gibbons, P. Price & G. R. Shellam:** Bone marrow atrophy induced by murine cytomegalovirus infection

419 **D. A. Smith, Q. D. Bickle & P. M. Kaye:** Resistance induced by drug abbreviated *Schistosoma mansoni* infections: treatment with the drug Ro11-3128 leads to enhanced antigen presentation

427 **R. Uchikawa, M. Yamada, S. Matsuda, A. Kuroda & N. Arizono:** IgE antibody production is associated with suppressed interferon-γ levels in mesenteric lymph nodes of rats infected with the nematode *Nippostrongylus brasiliensis*

433 **B. Mari, J.-P. Breittmayer, S. Guerin, N. Belhacene, J.-F. Peyron, M. Deckert, B. Rossi & P. Auberger:** High levels of functional endopeptidase 24.11 (CD10) activity on human thymocytes: preferential expression on immature subsets

439 **R. Malhotra, A. C. Willis, A. Lopez Bernal, S. Thiel & R. B. Sim:** Mannan-binding protein levels in human amniotic fluid during gestation and its interaction with collectin receptor from amnion cells

445 **G. Hetland & H. G. Wiker:** Antigen 85C on *Mycobacterium bovis*, BCG and *M. tuberculosis* promotes monocyte-CR3-mediated uptake of microbeads coated with mycobacterial products

450 **M. F. Geertsma, W. L. Teeuw, P. H. Nibbering & R. van Furth:** Pulmonary surfactant inhibits activation of human monocytes by recombinant interferon-γ

457 **L. F. Barrera, I. Kramnik, E. Skamene & D. Radzioch:** Nitrite production by macrophages derived from BCG-resistant and -susceptible congenic mouse strains in response to IFN-γ and infection with BCG

465 **R. H. Daniels, M. A. Elmore, M. E. Hill, Y. Shimizu, J. M. Lackie & M. J. Finnen:** Priming of the oxidative burst in human neutrophils by physiological agonists or cytochalasin B results from the recruitment of previously non-responsive cells

473 **K. B. Bacon, L. Fores-Romo, J.-P. Aubry, T. N. C. Wells & C. A. Power:** Interleukin-8 and RANTES induce the adhesion of the human basophilic cell line KU-812 to human endothelial cell monolayers

482 **Z.-Q. Hu, T. Yamazaki, Z. Cai, T. Yoshida & T. Shimamura:** Mast cells display natural suppressor activity partially by releasing transforming growth factor-β

487 **U. O'Doherty, M. Peng, S. Gezelter, W. J. Swiggard, M. Betjes, N. Bhardwaj & R. M. Steinman:** Human blood contains two subsets of dendritic cells, one immunologically mature and the other immature

494 **Y. Kita, T. Sumida, I. Iwamoto, S. Yoshida & T. Koike:** V gene analysis of anti-cardiolipin antibodies from (NZW × BXSB) F_1 mice

502 Book reviews

504 Erratum

Vol 82, No 4, August 1994

505 **Editorial note**

Rapid communication

506 **A. M. Campbell, A. M. Vignola, P. Chanez, Ph. Godard & J. Bousquet:** Low-affinity receptor for IgE on human bronchial epithelial cells in asthma

509 **J. Kulics, A. Circolo, R. C. Strunk & H. R. Colten:** Regulation of synthesis of complement protein C4 in human fibroblasts: cell- and gene-specific effects of cytokines and lipopolysaccharide

516 **M. Oppermann & O. Götze:** Plasma clearance of the human C5a anaphylatoxin by binding to leucocyte C5a receptors

522 **L. Baranyi, K. Baranji, H. Takizawa, N. Okada & H. Okada:** Cell-surface bound complement regulatory activity is necessary for the *in vivo* survival of KDH-8 rat hepatoma

529 **S. Mouritsen, I. Dalum, A. M. Engel, I.-M. Svane, I. Svendsen, O. Werdelin & H. Elsner:** MHC class II-bound self-peptides can be effectively separated by isoelectric focusing and bind optimally to their MHC class II restriction elements around pH 5·0

535 **E. Ulvestad, K. Williams, L. Bø, B. Trapp, J. Antel & S. Mørk:** HLA class II molecules (HLA-DR, -DP, -DQ) on cells in the human CNS studied *in situ* and *in vitro*

542 **C. Vedeler, E. Ulvestad, L. Bjørge, G. Conti, K. Williams, S. Mørk & R. Matre:** The expression of CD59 in normal human nervous tissue

548 **M. Blanchard-Channell, P. F. Moore & J. L. Stott:** Characterization of monoclonal antibodies specific for equine homologues of CD3 and CD5

555 **J. Jones & B. P. Morgan:** Comparative susceptibility of peripheral blood leucocytes and related cell lines to killing by T-cell perforin

561 **M. W. Douglas, A. M. Kesson & N. J. C. King:** CTL recognition of West Nile virus-infected fibroblasts is cell cycle dependent and is associated with virus-induced increases in class I MHC antigen expression

571 **S. Satoh, A. K. Nüssler, Z.-Z. Liu & A. W. Thomson:** Proinflammatory cytokines and endotoxin stimulate ICAM-1 gene expression and secretion by normal human hepatocytes

577 **M. Bailey, L. Hall, P. W. Bland & C. R. Stokes:** Production of cytokines by lymphocytes from spleen, mesenteric lymph node and intestinal lamina propria of pigs

584 **M. Denis:** Neutralization of transforming growth factor-β_1 in a mouse model of immune-induced lung fibrosis

591 **R. Hernandez-Pando & G. A. W. Rook:** The role of TNF-α in T-cell-mediated inflammation depends on the Th1/Th2 cytokine balance

596 **M. L. Mbow, B. Rutti & M. Brossard:** Infiltration of $CD4^+$ $CD8^+$ T cells, and expression of ICAM-1, Ia antigens, IL-1α and TNF-α in the skin lesion of BALB/c mice undergoing repeated infestations with nymphal *Ixodes ricinus* ticks

603 **P. Yaqoob, E. A. Newsholme & P. C. Calder:** The effect of dietary lipid manipulation on rat lymphocyte subsets and proliferation

611 **M. Hamad & J. R. Klein:** Phenotypic and functional heterogeneity of murine intestinal intraepithelial lymphocytes defined by cell density: implications for route of differentiation and responsiveness to proliferation induction

617 **P. Friedl, P. B. Noble, E. D. Shields & K. S. Zänker:** Locomotor phenotypes of unstimulated $CD45RA^{high}$ and $CD45RO^{high}$ $CD4^+$ lymphocytes in three-dimensional collagen lattices

625 **A. D. Dick, Y. F. Cheng, J. Liversidge & J. V. Forrester:** Intraanasal administration of retinal antigens suppresses retinal antigen-induced experimental autoimmune uveoretinitis

632 **A. S. Trevani, G. A. Andonegui, M. A. Isturiz, M. Schatner, G. Serebrinsky & J. R. Geffner:** Effect of proteolytic enzymes on neutrophil FcγRII activity

638 **S. Weber, B. Ruh, E. Dippel & B. M. Czarnetzki:** Monoclonal antibodies to leucosialin (CD43) induce homotypic aggregation of the human mast cell line HMC-1: characterization of leucosialin on HMC-1 cells

645 **P. Faure, M. Marussig, P. Goossens, F. Miltgen & D. Mazier:** Characterization of liver lymphomyeloid cells in mice infected with *Plasmodium yoelii* sporozoites

651 **P. H. Elzer, R. H. Jacobson, S. M. Jones, K. H. Nielsen, J. T. Douglas & A. J. Winter:** Antibody-mediated protection against *Brucella abortus* in BALB/c mice at successive periods after infection: variation between virulent strain 2308 and attenuated vaccine strain 19

659 **J. E. G. Downing:** Multiple nitric oxide synthase systems in adult rat thymus revealed using NADPH diaphorase histochemistry

665 Author and subject indexes for Volume 82